

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION**

**JEFFREY GADDY,**

**Plaintiff,**

**v.**

**1:14-cv-1928-WSD**

**TEREX CORPORATION, TEREX  
SOUTH DAKOTA, INC., and  
TEREX UTILITIES, INC.,**

**Defendants.**

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**OPINION AND ORDER**

This matter is before the Court on Defendants Terex Corporation, Terex South Dakota, Inc., and Terex Utilities, Inc.’s (collectively, “Defendants” or “Terex”) Motion to Strike Rebuttal Report of Nathan Morrill [380].

**I. BACKGROUND**

**A. Facts**

This is a products liability action stemming from the failure of a 2002 Terex Hi-Ranger XT 60/70 boom, Serial No. 2021020554 (the “Subject Boom Truck”), an aerial lift device. Terex XT aerial devices are commonly utilized by tree trimming companies.

On April 9, 2014, Plaintiff Jeffrey Gaddy (“Plaintiff”) was in the bucket of the Subject Boom Truck when the lower boom stub fractured, causing Plaintiff to fall to the ground. Plaintiff suffered spinal injuries resulting in paraplegia. Plaintiff claims Terex negligently manufactured and designed the Subject Boom Truck, and that it failed to warn him of certain dangers. Plaintiff also claims that the steel used in the lower boom stub did not meet Terex’s design specifications.

In support of his negligent design claim, Plaintiff identified Nathan Morrill, P.E. as a design expert. Mr. Morrill issued a report [393.1] (the “Original Report”) that stated a variety of opinions regarding Terex’s design of the Subject Aerial Device, including his interpretation of the standards promulgated by the American National Standards Institute (the “ANSI Standards”), the applicability of the ANSI Standards to Terex’s design of the Subject Aerial Device, and the feasibility of alternative designs. Mr. Morrill’s opinions included that the ANSI Standards required, among other things, that calculated or known stresses may not exceed 50 percent of the yield strength of the material—a standard known as a “2.0 safety factor.” (Original Report ¶ 51). In this case, that would mean stresses could not exceed 35,000 psi. (Id. ¶ 81). Mr. Morrill concluded that Terex ignored the ANSI Standards when assessing stress concentrated areas and that the boom had a 1.47 safety factor from a crane testing standard. (Id. ¶¶ 66-67). Mr. Morrill also opined

that Terex failed to apply stress concentration factors and dynamic load factors to their preproduction calculations as required by ANSI A92.2. (Id. ¶ 182).

Mr. Morrill created Finite Element Analysis (“FEA”) models of three lower boom stubs in the XT series, and offered two proposed alternative designs of the XT 60 lower boom stub. (Id. ¶¶ 108-153). Mr. Morrill concluded that the cracking and failure of the XT boom was caused by Terex’s use of weaker steel and Terex’s design of the boom, and that, had the XT 60 been designed to meet ANSI A92.2 standards, it would not have failed in this case. (Id. ¶ 187).

Terex designated civil engineer Vijay K. Saraf, Ph.D. as an expert regarding the design of the Terex XT 60 boom. On September 30, 2016, Terex produced Dr. Saraf’s expert report [393.4] (“Saraf Report”). Dr. Saraf opined that ANSI Standards addressed only static loading conditions and that stress concentrations could, in practice, be ignored. (Saraf Report at 16; Saraf Dep. [393.5] at 153). Dr. Saraf further opined that Terex’s testing of the XT-60/70 boom prototype exceeded ANSI Standards because they applied a safety factor of 1.1 when accounting for stress concentrations, instead of ignoring stress concentrations. In his deposition, Dr. Saraf justified his opinion that stress concentrations could be ignored by giving examples from design criteria for buildings and bridges. (Saraf Dep. at 47. Dr. Saraf also gave opinions regarding Mr. Morrill’s use of FEA

models, opining that using FEA-aided measured stress is not “good engineering practice” and would lead to an “impossible design goal.” (Saraf Report at 16). He also opined that it was “impossible” to design any aerial lift device that would satisfy Mr. Morrill’s interpretation of ANSI A92.2 that stresses could not exceed 50% of yield strength based on verified stress concentration factors and dynamic loads. (Id. at vii, ¶ 18).

Plaintiff designated Mr. Morrill as a rebuttal expert to rebut Dr. Saraf’s opinions. On November 4, 2016, Plaintiff produced Mr. Morrill’s Rebuttal Report [393.3]. The Rebuttal Report included the following opinions:

37. Based off of the new information I have reviewed, my analyses, my professional experience design mobile equipment including aerial lifts, and my education as a mechanical engineer, I add to the opinions set forth in my first report and those mentioned above.
38. Buildings and bridges are designed to different standards and regulations than aerial lifts, the design requirements of each are different due to the loading and operating conditions.
39. Dr. Saraf is wrong in assuming that stress concentrations and dynamics can be ignored for aerial lift design. Stress concentration factors when subjected to cyclic loading cannot and should not be ignored. Doing so reduces the life of a design and can lead to failure which will endanger the operator of an aerial device.
40. ANSI A92.2-2001 specifically instructs designers and manufacturers to take into account the effects of stress concentrators and dynamic loading because they cannot be ignored.
41. Terex SD measured and calculated stresses in 1996 for the XT 52 lower boom stub, and should have been put on notice that the stress

concentration factor for the area of failure was at least 1.85. These concentration factor is [sic] a result of Terex SD's design of this location, and is unique to this geometry. This factor can be reduced or removed with designs that better distribute the stresses and load paths.

42. The XT 52 lower boom stub did not meet ANSI A92.2-2001.
43. Terex SD should have known from 1996 forward that a stress concentration factor of 1.1 was inappropriate for the weld in the lower boom stub weldment at the area of failure.
44. Terex SD was put on notice in 1999 that the stress concentration factor for the area of failure at the lower boom stub cylinder ear was at least 2 from the XT 60 testing.
45. The XT 60 lower boom stub did not meet ANSI A92.2-2001.
46. The use of FEA results to verify compliance with ANSI A92.2 is appropriate.
47. Alternative designs that meet the requirements of ANSI A92.2 are not impossible nor unrealistic to obtain when using test results and FEAs.

(Morrill Rebuttal Report ¶¶ 37-47).

Terex moves to strike paragraphs 37 through 47 of Mr. Morrill's Rebuttal Report, arguing that the opinions expressed in these paragraphs do not rebut opinions offered by Dr. Saraf. Specifically, Terex argues that Mr. Morrill's opinions are: (1) restatements of his original opinions; (2) revisions of his original opinions; or (3) new opinions that do not rebut opinions of Terex's experts.

## II. DISCUSSION

### A. Legal Standard

Rule 26(a)(2) of the Federal Rules of Civil Procedure governs the disclosure of expert witnesses and reports. Rule 26(a)(2)(B) requires that an initial expert report contain “a complete statement of all opinions the witness will express and the basis and reasons for them.” Fed. R. Civ. P. 26(a)(2)(B). Rule 26(a)(2)(D) provides:

A party must make these disclosures at the time and in the sequence that the court orders. Absent a stipulation or a court order, the disclosures must be made (i) at least 90 days before the date set for trial or for the case to be ready for trial; or (ii) if the evidence is intended solely to contradict or rebut evidence on the same subject matter identified by another party under Rule 26(a)(2)(B) or (C), within 30 days after the other party’s disclosure.

Id. at (a)(2)(D).

Rule 26(a)(2)(D)(ii) permits a party to file a rebuttal expert report “if the evidence is intended solely to contradict or rebut evidence on the same subject matter identified by another party[’s]” initial expert report. Id. at (a)(2)(D)(ii). “Courts are empowered to exercise their discretion and judgment in determining if a rebuttal expert report addresses the same subject matter as the opposing party’s initial expert report.” ITT Corp. v. Xylem Grp., LLC, No. 1:11-CV-3669-WSD, 2012 WL 12871632, at \*3 (N.D. Ga. Oct. 15, 2012); see 103 Investors I, L.P.

v. Square D Co., 372 F.3d 1213, 1217-18 (10th Cir. 2004); Rent-A-Center, Inc.

v. Canyon Television and Appliance Rental, Inc., 944 F.2d 597, 601 (9th Cir. 1991).

A party's opportunity to submit a rebuttal expert report is not license to expand its case-in-chief. "Rebuttal is for the purpose of contradicting an opinion. Krueger v. Wyeth, Inc., No. 03cv2496-JAH (MDD), 2012 WL 3637276, at \*4 (S.D. Cal. Aug. 22, 2012). "A party also may not use a rebuttal expert to introduce new legal theories." Stephenson v. Wyeth LLC, No. 04-2312, 2011 WL 4900039, at \*1 (D. Kan. Oct. 14, 2011). "A rebuttal expert report is not the proper 'place for presenting new arguments, unless presenting those arguments is substantially justified and causes no prejudice.'" " STS Software Sys., Ltd. v. Witness Sys., Inc., Civil Action No. 1:04-CV-2111-RWS, 2008 WL 660325, at \*2 (N.D. Ga. Mar. 6, 2008) (quoting Baldwin Graphic Sys., Inc. v. Siebert, No. 03 C 7713, 2005 WL 1300763, at \*2 (N.D. Ill. Feb. 22, 2005)).

"Courts will disallow the use of a rebuttal expert to introduce evidence more properly as part of a party's case-in[-]chief." Stephenson, 2011 WL 4900039, at \*1; see also Sil-Flo, Inc. v. SFHC, Inc., 917 F.2d 1507, 1515 (10th Cir. 1990). However, "the fact that testimony would have been more proper for the case-in-chief does not preclude the testimony if it is proper both in the case-in-chief and in

rebuttal.”” Donell v. Fidelity Nat. Title Agency of Nev., No. 2:07-cv-00001, 2012 WL 170990, at \*5 (quoting United States v. Lunschen, 614 F.2d 1164, 1170 (8th Cir. 1980)). That is, a rebuttal opinion generally must rebut an opposing expert’s opinion. If an opinion restates one offered in an original expert report, it may not be offered in rebuttal unless it rebuts an opinion offered by the opposing expert.

See id.

#### B. Analysis

##### 1. Paragraphs 39, 40, 42, 45, and 46

The Court, having reviewed Dr. Saraf’s expert report and deposition and Mr. Morrill’s Original Report, deposition, and Rebuttal Report, concludes that Paragraphs 39, 40, 42, 45, and 46 of Mr. Morrill’s Rebuttal Report, while redundant of his Original Report, do rebut Dr. Saraf’s opinions concerning the role of stress concentration factors, application of ANSI Standards, and the use of FEA models. In his report and deposition, Dr. Saraf opined that stress concentrations and dynamics can be ignored, and that Terex’s use of a 1.1 concentration factor exceeded ANSI Standards. (See Saraf Report at 15-16; Saraf Dep at 153). Plaintiff’s rebuttal opinions explain the need to consider stress concentration factors and that those concentration factors are considered in evaluating compatibility with ANSI Standards. Paragraphs 42 and 45 show that stress

concentration factors, on average, exceeded the stress concentration factor Terex used, and thus that “the use of a 1.1 minimum value for the stress concentration factor at the point of failure was not appropriate or proper as [Dr.] Saraf has stated.” (Morrill Rebuttal Report ¶¶ 6, 7, 11). Paragraph 46 addresses the role of FEA models when assessing compliance with ANSI Standards, and rebuts Dr. Saraf’s statement that use of FEAs is not “good engineering practice” and would lead to an “impossible design goal.”

## 2. Paragraph 38

This paragraph offered by Mr. Morrill rebuts Dr. Saraf’s reliance on standards that apply to building and bridge construction and is appropriate rebuttal testimony.

## 3. Paragraph 47

In Paragraph 47, Mr. Morrill opines that alternative designs that meet the requirements of ANSI A92.2 are not impossible nor unrealistic to obtain when using test results and FEAs. In support of this opinion, Mr. Morrill presents two alternative designs. He argues that the alternative designs rebut Dr. Saraf’s opinion that it was “impossible” to design any aerial lift device that would satisfy Mr. Morrill’s interpretation of ANSI A92.2 that stresses could not exceed 50% of yield strength based on verified stress concentration factors and dynamic loads.

In his Original Report, Mr. Morrill created two alternative designs that he argued were feasible and compliant under his interpretation of the ANSI Standards. During his deposition, Mr. Morrill conceded that neither design complied with his interpretation of ANSI. (Morrill Dep. [406.1] at 66 (“Dr. Saraf pointed out some that were anomalies due to the gap that was incorporated into the model.”)). Dr. Saraf opined that there were certain discrepancies between Mr. Morrill’s two alternative designs and his interpretation of ANSI and that, based upon Mr. Morrill’s alternative designs, it appeared to be impossible to design an aerial device that was compliant with Mr. Morrill’s interpretation of ANSI. In his Rebuttal Report, Mr. Morrill developed two revised alternative designs, purportedly in response to Dr. Saraf’s opinion. The Court finds these revised alternative designs are a transparent attempt by Mr. Morrill to revise or supplement his original, allegedly deficient, alternative designs. This is not a proper rebuttal opinion. See Noffsinger v. Valspar Corp., No. 09 C 916, 2011 WL 9795, at \*6 (N.D. Ill. Jan. 3, 2011) (“[A] party may not offer testimony under the guise of ‘rebuttal’ only to provide additional support for his case in chief.” (citing Peals v. Terre Haute Police Dep’t, 535 F.3d 621, 630 (7th Cir. 2008))).

Rule 37(c)(1) of the Federal Rules of Civil Procedure states that when a “party fails to provide information or identify a witness as required by Rule 26(a)

or 26(e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.” Fed. R. Civ. P. 37(c)(1). Thus, “[t]he portions of an expert’s rebuttal that address subjects that were not addressed in the expert report purportedly being rebutted should be excluded.” See Mitchell v. Ford Motor Co., 318 F. App’x. 821, 825 (11th Cir. 2009) (quoting Leathers v. Pfizer, Inc., 233 F.R.D. 687, 697 (N.D. Ga. 2006)); D’Andrea Bros., 2012 WL 644010, at \*3.

Plaintiff argues that Terex has not been prejudiced by any late disclosure, because Terex has the opportunity to depose Mr. Morrill on his rebuttal report. The Court disagrees. Mr. Morrill presented his two alternative designs on September 1, 2016, which Terex then analyzed and critiqued in Dr. Saraf’s expert report. Dr. Saraf did not have the opportunity to issue any opinions critiquing or rebutting the revised alternative designs Mr. Morrill set out in his rebuttal report. An expert is not permitted to testify about opinions or data not contained in his expert report. See Fed. R. Civ. P. 26(a)(2). The Court finds Plaintiff’s “rebuttal” opinion offered by Mr. Morrill and stating two new alternative designs is not proper rebuttal, and to allow them is prejudicial to Terex. Terex’s Motion to Strike Paragraph 47 is granted.

4. Paragraphs 41, 43, and 44

Finally, Terex seeks to strike Paragraphs 41, 43, and 44, arguing that these opinions do not rebut any opinions by Dr. Saraf, but merely buttress Plaintiff's position that Terex should have considered additional internal design factors based on testing conducted prior to the manufacture of the XT 60. Plaintiff argues that these Paragraphs contradict Dr. Saraf's statements that stress concentration factors may be ignored by demonstrating that Terex's own measurements revealed an actual stress concentration factor in Terex's XT booms that is much greater than the 1.1 minimum value applied. Dr. Saraf offered the opinion that Terex's testing of the XT-60/70 boom prototype exceeded ANSI Standards because they applied a safety factor of 1.1 when measuring stress concentrations. (Saraf Report at 15-16). Plaintiff offers the below opinions of Mr. Morrill in Paragraphs 41, 43, and 47 to rebut Dr. Saraf's report:

41. Terex SD measured and calculated stresses in 1996 for the XT 52 lower boom stub, and should have been put on notice that the stress concentration factor for the area of failure was at least 1.85. These concentration factor is [sic] a result of Terex SD's design of this location, and is unique to this geometry. This factor can be reduced or removed with designs that better distribute the stresses and load paths.

43. Terex SD should have known from 1996 forward that a stress concentration factor of 1.1 was inappropriate for the weld in the lower boom stub weldment at the area of failure.

44. Terex SD was put on notice in 1999 that the stress concentration factor for the area of failure at the lower boom stub cylinder ear was at least 2 from the XT 60 testing.

For the opinions in Paragraphs 41, 43, and 44 to be admissible in rebuttal to Dr. Saraf's opinion under Rule 26(a)(2)(D)(ii) the opinion must rebut Dr. Saraf's opinion. It is not disputed that Terex did prototype testing. Dr. Saraf's opinion, based on the testing conducted, showed a 1.1 safety factor, which Dr. Saraf opined was adequate to show the boom design was safe. The rebuttal offered in Paragraphs 41, 43, and 44 goes beyond rebuttal of opinions offered by Dr. Saraf. Mr. Morrill's opinion in Paragraph 41 does not rebut Dr. Saraf's opinion that a 1.1 factor was sufficient, and it does not otherwise discredit the manner in which the 1.1 factor was determined. Paragraphs 43 and 44 similarly fail to constitute proper rebuttal. They also do not seek to discredit the factor found by Dr. Saraf's opinion that the factor Terex used was sufficient to address stress concentrations. Paragraphs 43 and 44, rather, are opinions as to whether Terex was on notice of the claimed defect. Simply put, they do not address the adequacy of the testing itself or the factor found that would have put Terex on notice, and if so, of what.<sup>1</sup> Terex's Motion to Strike Paragraphs 41, 43, and 44 is granted.<sup>2</sup>

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<sup>1</sup> What a party knew and when is not an opinion this Court finds is proper under Federal Rule of Evidence 702, because it is a jury's decision when, based on

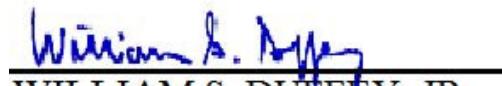
### III. CONCLUSION

For the foregoing reasons,

**IT IS HEREBY ORDERED** that Terex's Motion to Strike Rebuttal Report of Nathan Morrill [380] is **GRANTED IN PART** and **DENIED IN PART**.

Terex's Motion is **GRANTED** with respect to Paragraphs 41, 43, 44, and 47 of Mr. Morrill's Rebuttal Report, including any opinions relating to alternative designs not set forth in Mr. Morrill's Original Report. Terex's Motion is **DENIED** with respect to Paragraphs 37, 38, 39, 40, 42, 45, and 46 of Mr. Morrill's Rebuttal Report.

**SO ORDERED** this 2nd day of August, 2017.

  
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WILLIAM S. DUFFEY, JR.  
UNITED STATES DISTRICT JUDGE

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facts and other admissible evidence presented, including the opinion of experts, to determine when a party may have been on notice of a fact at issue in a case. Mr. Morrill's opinion on when he believes Terex was on notice is not an issue upon which an expert's opinion is helpful to the fact finder.

<sup>2</sup> Paragraph 37 is not excluded, because it is not offered as an opinion but background for the opinions that are not excluded.